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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,796	01/13/2004	Jon C. Taenzer	035372-003	5451

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EXAMINER

HARVEY, DIONNE

ART UNIT PAPER NUMBER

2643

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,796

Applicant(s)

TAENZER ET AL.

Examiner

Dionne N Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 recites the limitation "the front of the user" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1-3, 5-9 and 14-16** are rejected under 35 U.S.C. 102(e) as being anticipated by **Webber (US 2004/0101151)**.

Regarding claim 1, in **figure 13**, Webber teaches an earpiece for sound delivery comprising: (a) a housing **14,15**; in **page 4, paragraph [0055]**, Webber teaches that the electronic components within the housing include a speaker or microphone, reading on “a speaker located in said housing”; and in **page 4, paragraph [0056]** Webber teaches that an ear section **11**, reading on “a cap for providing sound communication from the speaker to the ear”, may be affixed to the housing by threading, reading on “rotatable”.

Regarding claim 2, in **figure 13**, Webber teaches that said rotatable cap **11** comprises a body **18** rotatably coupled to said housing **14,15**, a bud **21** extending from the body, and port means **23** for providing sound communication from the speaker to the end of the bud.

Regarding claim 3, in **page 1, paragraph [0012]**, Webber teaches that said bud is constructed so as not to occlude the ear when inserted in the entrance to a user's ear.

Regarding claim 5, Webber teaches that the ear bud does not occlude the user's ear canal, thereby reading on "said bud has a diameter less than the diameter of the entrance to the user's ear so that said bud does not occlude the ear when inserted in the entrance to a user's ear."

Regarding claim 6, **in figure 4**, Webber teaches that the ear pad **21** has a substantially frusto conical shape.

Regarding claim 7, **in figure 13**, Webber teaches that said port means **23** comprises one port.

Regarding claim 8, **in figure 13**, Webber teaches that the *arcuate neck portion* **20** of the ear bud is in a shape like a cylinder.

Regarding claim 9, **in figure 13**, Webber teaches an outwardly extending portion **21**, which the Examiner has interpreted as forming "a hollow mushroom-shaped element coupled with an end of the bud."

Regarding claim 14, **in figure 4**, Webber teaches an ear set assembly comprising: an earpiece housing **11**; and illustrates a u-shaped portion formed by inner housing **14** and clamp **12**, which read on "a neck member shaped to cooperate with a user's ear"; in **claims 12 and 13**, Webber teaches that the electronic components within the housing include a speaker or microphone, reading on "and comprising a speaker housing and a microphone housing,"; Webber teaches that the neck portion is formed by inner housing **14**, reading on "neck member being configured to connect to said earpiece housing."

Regarding claim 15, as **illustrated in figure 4**, Webber teaches that said neck member **14,12** forms a substantially U-shape to cooperate with a user's ear.

Regarding claim 16, Webber teaches that said neck member includes a substantially U-shaped portion **14,12** to connect to said housing **14,15**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)** in view of **Connors (US 2002/0181728 A1)**.

Regarding claim 4, Webber does not clearly teach that said bud includes grooves so that said bud does not occlude the ear when inserted in the entrance to a user's ear.

In **figure 1**, Connors teaches that the ear bud portion may be provided with grooves **30**. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Webber and Connors, thereby providing a means for permitting sound from the external environment to enter into the wearer's ear canal.

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5. **Claims 13, 18 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)** in view of **Nassimi (US 2004/0062412)**.

Regarding claim 13, Webber does not clearly teach that the material of the cap is silicone rubber. On **page 2, paragraph [0018]**, and **page 4, paragraph [0051]** Nassimi teaches that the material of an ear insert **4** may be formed from silicone rubber. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Webber and Nassimi, for the purpose of providing an outer portion for the ear insert which may be comfortably held in place on the ear of the wearer.

Regarding claims 18, **on page 5, paragraph [0060]**, Nassimi teaches that the housing of the ear set device may include an antenna.

Regarding claim 22, Nassimi teaches that the ear set may further comprise a battery **40** contained in the housing.

6. **Claims 11-12 and 23-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)**.

Regarding claims 11 and 12, Webber teaches, in **claims 12 and 13**, that the housing may include both a microphone and speaker. It is well known in the art to mount a speaker element to the outside of the main housing such that the ear bud **11** portion can be interchangeably connected to the speaker and thereby the housing. See *Davis reference*, cited below. Though Webber does not specifically teach a mounting

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arrangement for said microphone and/or speaker within said housing, it would have been obvious for one of ordinary skill in the art at the time of the invention to mount a speaker within the main passage way **17**, illustrated in **figure 13**. In doing so, that axis which extends through the speaker assembly so as to divide the speaker into a front section and a rear section, would be oriented substantially perpendicularly to the axis of the ear canal, also meeting the limitation of an angle of the axis of the bud to the axis of the speaker between 15 degrees and 90 degrees.

Regarding claim 23, Webber teaches, in **claim 13**, that the housing may include a microphone. Webber does not specifically teach the mounting arrangement of said microphone. However, it is well known in the art to mount a microphone within the main housing of such an ear set, or to provide a microphone boom for transmitting voice signals, thereby providing an ear set device for receiving and transmitting the voice signals of the wearer.

Regarding claim 24, Webber teaches a support means **21** to support a speaker in the concha of a user's ear (*see the rejection of claims 11 and 12, above*); and a cap which may be affixed to the housing by threading, reading on "a cap rotatably coupled to said support means and providing sound communication from the speaker to the entrance of a user's ear"; individual users may remove and reposition the ear set device within the concha of the wearer so as to be more comfortably accommodated within the ear, which is interpreted as reading on "said rotatable cap being rotatable to various angles to accommodate anatomical differences among users."

Regarding claim 25, *as discussed in the rejection of claims 11 and 12*, above, it would have been obvious to dispose a speaker transducer within the main passageway **17**, which is illustrated in **figure 13**. Additionally, Webber teaches that the ear cap may be attached to the main passage way via a threading arrangement, thereby reading on "rotatable cap is rotatable about the axis of the speaker."

7. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)** in view of **Stonikas (US 2002/0025055)**.

Regarding claim 17, Webber does not clearly teach that the wherein neck member **14** is bonded to the housing **15** by ultrasonic welding.

In page 4, paragraph [0076] Stonikas teaches that ultrasonic welding may be used for attaching components of a hearing device. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Webber and Stonikas, employing any variety of methods for attaching components such as adhesive, heat sealing, fusing, mechanically, ultrasonic or radio frequency welding, as any of these processes will reliably couple the elements.

8. **Claim 19,20 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)** in view of **Keliiliki (US 5,412,736)**.

Regarding claim 19, in column 10, lines 40-45, Webber does not clearly teach that the material of the neck member is elastic material. Keliiliki teaches an ear set assembly wherein a portion of said assembly extends behind the ear of the wearer, said

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ear set assembly including a neck portion **62** which is constructed from elastic material such as urethane rubber, silicone, vinyl, and thermal rubber. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Webber and Keliiliki, lining the outer housing of Webber with an elastic material for the purpose of providing a material, which is soft and comfortable to the skin.

Regarding claim 20, **in column 10, lines 40-45**, Keliiliki teaches that the material of the neck member is rubber.

Regarding claim 21, **in column 10, lines 40-45**, Keliiliki teaches that the material of the neck member is silicone rubber.

9. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Webber (US 2004/0101151)** in view of **Redmer (US 2004/0037444)**.

Regarding claim 26, *Discussed in the rejection of **claims 11 and 12***, above, it would have been obvious for one of ordinary skill in the art to dispose a speaker transducer within the main passageway **17**, which is illustrated in **figure 13**.

Webber does not clearly teach that the cap forms an acoustic seal with the speaker.

In **page 2, paragraph [0028]**, Redmer teaches that a speaker housing may be constructed so as to provide an acoustically sealed speaker compartment. It would have been obvious for one of ordinary skill in the art at the time of the invention to

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combine the teachings of Webber and Redmer, for the purpose of providing an ear set device wherein the speaker is disposed within a tuned acoustic compartment.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Davis US 5,761,298 teaches a speaker housing having detachable ear cap.

Dobras (US 2003/0152244) teaches an ear cap having non-occluding grooves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N Harvey whose telephone number is 703-305-1111. The examiner can normally be reached on 9-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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